1. Blood-groups

1. Write short nots on:

- (i) Landsteiner's Law
- (ii) Rh factor
- (iii) Hemolytic disease of newborn
- (iv) Uses of blood group tests
- (v) Direct cross matching
- (vi) Dangers of incompatible blood transfusion
- (vii) Storage of blood increasing degree while in contact with their own plasma in the blood bank. If stored cells are transfused, they become normal (reconditioned) in less than 48 hours, with reference to Na.,. and K+ content, volume, shape and saline fragility.
- (viii) Heterologus and autologus transfusion
- (ix) Prevention of Rh hemolysis diseases
- (x) Warm and cold antibodies

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2. Give physiological basis of:

- (i) How a and~ agglutinins are produced in persons who do not have the respective agglutinogens in their RBCs?
- (ii) In a Rh negative mother carrying an Rh positive foetus, the first child is usually normal.
- (iii) In case of extreme emergency, 'O' Rh negative blood should be transfused.
- (iv) LV. calcium gluconate is given with citrated blood transfusion.
- (v) Blood grouping can never prove that any suspected person is the actual father.
- (vi) ABO incompatabilities rarely produce hemolytic disease of newborn.
- (vii) Stored blood is not suitable for transfusing WBCs and platelet to a recipient.
- (viii) The terms'universal donor' and 'recipient' are no longer valid.
- (ix) Kemicterus, Hydrops foetalis, Icterus gravis neonatorum and Erythroblastosis foetalis

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3. How the blood groups are determined? Give their frequency of distribution in India.

4. How much blood is sufficient to produce anti-D antibodies in an Rh negative individual?

5. Give the basic rules needed to be observed for blood transfusion.

6. At what age after birth a child's blood group is set in its true ABO type? Explain.

7. What changes blood cells undergo during cold storage?

8. Draw labelled diagram to show inheritance of blood groups.